

What is claimed is:

1. An aircraft comprising:
  - a fuselage with a forward end, and aft end and two lateral sides;
  - a pair of coanda each with an inner and outer end;
  - a pair of upper wings each with an inner and outer end; and
  - a pair of lower wings each with an inner and outer end;
  - one of the coanda is disposed on either side of the fuselage with the inner ends attached to the lateral sides of the fuselage;
  - one of the upper wings is disposed on either side of the fuselage with the inner ends attached to the lateral sides of the fuselage, located aft and above in relation to the coanda;
  - one of the lower wings is disposed on either side of the fuselage with the inner ends attached to the lateral sides of the fuselage, located aft and below in relation to the coanda, and below and forward in relationship to the upper wings;
  - the outer ends of the coanda , upper wing and lower wing located on each lateral side meet.
2. The aircraft as claimed in claim 1, wherein the coandas have a curved top surface and a curved bottom surface and a generally downward angle with relation from forward to aft of the fuselage.
3. The aircraft as claimed in claim 1, wherein the upper wings have a curved upper surface and a flat bottom surface.

- 1 4. The aircraft as claimed in claim 1, wherein the lower wings have a curved upper surface and  
2 a flat bottom surface.
- 1 5. The aircraft as claimed in claim 1, further comprising a propeller driven by an engine  
2 mounted on the forward end of the fuselage.
- 1 6. The aircraft as claimed in claim 1, further comprising a propeller driven by an engine  
2 mounted on the aft end of the fuselage.
- 1 7. The aircraft as claimed in claim 1, further comprising a pair of engines for generating thrust  
2 located on the forward end of the fuselage on either lateral side.
- 1 8. The aircraft as claimed in claim 7, further comprising a pair of saddle shunts, a pair of  
2 through-fuselage ducts, a pair of coanda ducts and a pair of crossover ducts located just aft  
3 of the engines;  
4 the saddle shunt are hingedly connected to the fuselage and move between an open  
5 and a closed position;  
6 wherein the thrust flows through the through fuselage ducts when the saddle shunts  
7 are in the open position and through the coanda ducts and the crossover ducts when the  
8 saddle shunts are in the closed position.

1 9. The aircraft as claimed in claim 7, further comprising a pair of thrust diverters attached to  
2 either side of the aft end of the fuselage.

1 10. The aircraft as claimed in claim 1, wherein the top and bottom surfaces of the coandas and  
2 the top and bottom surfaces of the upper wings and the top and bottom surfaces of the lower  
3 wing are covered with a variable camber aero hydrodynamic surface comprised of a  
4 plurality of cells.

1 11. The aircraft as claimed in claim 10, wherein each cell has a pressure line with a pressure  
2 valve connecting the cell to a pressure manifold and a vacuum line with a vacuum valve  
3 connecting it to a vacuum manifold.

1 12. An aircraft comprising:

2 a fuselage with a forward end, and aft end and two lateral sides;

3 a pair of coanda each with a curved top surface, a curved bottom surface, an inner  
4 end, an outer end and a generally downward angle with relation from forward to aft of the  
5 fuselage;

6 a pair of upper wings each with a curved upper surface, a generally flat bottom  
7 surface, an inner end and an outer end;

8 a pair of lower wings each with a curved upper surface, a generally flat bottom  
9 surface, an inner end and an outer end;

10 a propeller driven by an engine mounted on the forward end of the fuselage; and

11 a propeller driven by an engine mounted on the aft end of the fuselage;

12 one of the coanda is disposed on either side of the fuselage with the inner ends  
13 attached to the lateral sides of the fuselage;

14 one of the upper wings is disposed on either side of the fuselage with the inner ends  
15 attached to the lateral sides of the fuselage, located aft and above in relation to the coanda;

16 one of the lower wings is disposed on either side of the fuselage with the inner ends  
17 attached to the lateral sides of the fuselage, located aft and below in relation to the coanda,  
18 and below and forward in relationship to the upper wings;

19 the outer ends of the coanda , upper wing and lower wing located on each lateral side  
20 meet.

1 13. An aircraft comprising:

2 a fuselage with a forward end, and aft end and two lateral sides;

3 a pair of coanda each with a curved top surface, a curved bottom surface, an inner  
4 end, an outer end and a generally downward angle with relation from forward to aft of the  
5 fuselage;

6 a pair of upper wings each with a curved upper surface, a generally flat bottom  
7 surface, an inner end and an outer end;

8 a pair of lower wings each with a curved upper surface, a generally flat bottom  
9 surface, an inner end and an outer end;

10 a pair of engines for generating thrust located on the forward end of the fuselage on  
11 either lateral side;

12 a pair of saddle shunts, a pair of through-fuselage ducts, a pair of coanda ducts and  
13 a pair of crossover ducts located just aft of the engines,

14 the saddle shunt are hingedly connected to the fuselage and move between an open  
15 and a closed position,

16 wherein the thrust flows through the through fuselage ducts when the saddle shunts  
17 are in the open position and through the coanda ducts and the crossover ducts when the  
18 saddle shunts are in the closed position; and

19 a pair of thrust diverters attached to either side of the aft end of the fuselage;

20 one of the coanda is disposed on either side of the fuselage with the inner ends  
21 attached to the lateral sides of the fuselage;

22 one of the upper wings is disposed on either side of the fuselage with the inner ends  
23 attached to the lateral sides of the fuselage, located aft and above in relation to the coanda;

24 one of the lower wings is disposed on either side of the fuselage with the inner ends  
25 attached to the lateral sides of the fuselage, located aft and below in relation to the coanda,  
26 and below and forward in relationship to the upper wings;

27 the outer ends of the coanda , upper wing and lower wing located on each lateral side  
28 meet;

29 wherein the top and bottom surfaces of the coandas and the top and bottom surfaces  
30 of the upper wings and the top and bottom surfaces of the lower wing are covered with a  
31 variable camber aero hydrodynamic surface comprised of a plurality of cells, and

32 each cell has a pressure line with a pressure valve connecting the cell to a pressure  
33 manifold and a vacuum line with a vacuum valve connecting it to a vacuum manifold.